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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,964	12/19/2000	Mikael Kubista	GOTE.P-039	8802

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EXAMINER

SUAREZ, FELIX E

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/673,964

Applicant(s)

KUBISTA, MIKAEL

Examiner

Felix E Suarez

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other: _____

DETAILED ACTION

Abstract

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Information Disclosure Statement

2. The information disclosure statement filed 26 January 2001 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because in the FOREIGN list, page 1, the item listed "WO 95331713" and in the OTHER ART list, page 2, the item listed "Journal of Chemo metrics", they are not included at the moment of the examination. It has been placed in the application file, but the information referred to therein has not been considered as to the merits.

Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 15-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 15-28 are directed to mathematical operations that manipulate abstract ideas without a practical application. See MPEP 2106; page 2100-12.

With respect to independent claim 15, method for characterizing samples comprising the step of using a monitoring technique to characterize a sample, or pair of samples, such that a multidimensional response is generated according to

$$I(\alpha, \beta, \gamma \dots) = \sum c_i I_i(\alpha) I_i(\beta) I_i(\gamma) \dots$$

where the number of data points in each dimension are at least two

$$\alpha_1, \alpha_2, \dots, \alpha_l \quad l \geq 2$$

$$\beta_1, \beta_2, \dots, \beta_m \quad m \geq 2$$

$$\gamma_1, \gamma_2, \dots, \gamma_n \quad n \geq 2$$

and the 1-dimensional responses of the components, $\tilde{I}_i(\alpha)$, $\tilde{I}_i(\beta)$, $\tilde{I}_i(\gamma) \dots$ are calculated.

The Examiner considers that the multidimensional response mathematical equation " $I(\alpha, \beta, \gamma \dots) = \sum c_i I_i(\alpha) I_i(\beta) I_i(\gamma) \dots$ " is a general representation for a sum of sequences, events, dimensions or another class of elements.

This general mathematical representation, have n solutions as n elements or dimensions are considered in the spectral analysis; if the elements are included in a mathematical formula, formula which gives the spectral form of the analysis, it is possible to get a solution for those elements; without an analytical formula, this will be always an abstract mathematical idea.

To get the solution for one, two or for the total of the elements is necessary to convert this general representation to a real spectral denomination including parameters, limits, constants and all that is necessary to manipulate a mathematical expression to get a practical application. And the expression "**1-dimensional responses of the components, $\tilde{I}_1(\alpha), \tilde{I}_1(\beta), \tilde{I}_1(\gamma) \dots$ are calculated**" represents the abstract solution for one element or for one dimension, without practical application.

The Examiner notes that the general expression is a scalar representation impossible to give a vector solution as is indicate in the 1-dimentional response calculated solution.

With respect to claims 16-28, they represent an abstract mathematical solution for two, or more dimensions and they do not give a practical statement,

because they obey calculations, of a mathematical expression to get numerical results.

Conclusion

Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hively et al. [U.S. Patent No. 5,815,413] describes a d-dimensional vector.

Hill [U.S. Patent No. 6,246,481] describes a system and method that quantify nonlinearities.

Stoughton et al. [U.S. Patent No. 6,351,712] describes a step of determining an error distribution statistic.

Richards-Kortum et al [U.S. Patent No. 6,095,982] describes a fluorescence spectroscopy Diagnostic apparatus.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix Suarez, whose telephone number is (703) 308-4926. The examiner can normally be reached on weekdays from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on (703) 308-1677. The fax phone numbers for the organization where this application or proceeding is assigned

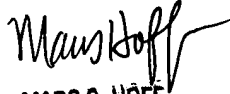
Art Unit: 2857

are (703) 308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

May 16, 2003

F.S.


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800